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175 succeeded in adapting to their new social and geographic environ-
174 ment. We may presume that natural selection helped the popula-
tion build up a genetic resistance to whatever montane illnesses had not previously affected the people when they were living in Mysore and that some lowland disease organisms were no longer able to survive at the new elevation, either because it was too high and cold for them or because the hosts among the scattered and tiny population died off without transferring these organisms to new hosts, or more probably because the population density was so low that, after one infection by any particular disease organism, antibodies were built up that protected all Badagas from any further infection in the near future. As the settlements expanded, the increasing numbers of people permitted greater transference of disease organisms and called for greater amounts of health care; but at the same time these settlements, located in most parts of the Nilgiri Plateau within a zone that lay between 1,200m and 2,200m feet elevation, gave people opportunities to select the more healthy residential sites, to explore micro-environmental differences in the area and most importantly to discover medicinal uses for dozens of new species of plants that were in many instances confined to the Plateau. We may presume that the pharmacological uses of local plants were discovered by Badaga women who worked as goat-herds and closely observed the feeding habits of their animals. While it is true that Badagas do not keep goats today, they did so during the seventeenth century and later too.

175 After contact with the British a new equilibrium with their
177 changed environment was achieved by the Badagas, and their
population was able to increase rapidly for several decades while
● 181 there was still a very low density of population. Why? One relevant factor, I would hypothesise, was that a change in their drinking habits followed the arrival of the British (from 1819 onward) and that this was associated with greater resistance to bacteria in the
[272] [273] drinking water. The main drinks of the community at the time were fresh milk and stream water. Yet by the 1840s arrack, a locally made liquor, as well as tea and coffee, were common Badaga preferences. Other cultural practices confined infectious bacteria to relatively limited areas. Buffalo dung tended to collect
[514] in the stone kraals built just outside the villages. Similarly, indiscriminate spitting was not tolerated and spittoons were consequently in common use. A proverb stressed that, 'If you ask for an obligation it is essential to see the right people; it is essential

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many Badaga villages; such itinerant preaching continued throughout the century.

1847 The mission took over a school established in the central village of Ke:ti and began persuading local parents to send more children there; parents objected to losing their children's labour and a salary had to be paid for school attendance. Other mission schools started in Ka:te:ri and So:gatore. Epidemic among Badaga cattle; Toda sorcery held responsible. Badagas in fear of the magic of the Revd. Weigle, who was vaccinating them against smallpox.

1849 The mission schoolmaster and the son of a Badaga headman involved in (unspecified) 'misconduct'. The headman prevented children from attending the school or communicating with missionaries, and that school was closed for six months. Another school opened in Sulligu:du. Some smallpox prevalent.

1850 Ambivalent feelings towards missionaries expressed in the account of a village that begged the Revd. Metz to visit them, then vacillated and asked him not to as the village god might run away.

1853 Typhus epidemic killed over five hundred Badagas. Evangelists noted an increasing opposition to them.

1854 Cholera and typhus epidemics. Government made production and sale of opium illegal: this had been quite an important marketable item for Badagas; some of them were addicted.

1855 Smallpox epidemic killed over a thousand Badagas. Temple for Jesus Christ built. A Badaga presented himself for baptism but died before this could occur. Government prohibited the fire-walking ceremony.

1856 A missionary rest-house burnt down by Badagas. From this year until 1887 government continuously planting further tracts with eucalyptus trees.

1857 Mission school re-established in So:gatore and another in Ba:kola. Stories of the Indian Mutiny caused increased hostility among Badagas towards missionaries and indirectly prevented a conversion. Drought in the Nilgiris.

1858 The first Badaga convert to Christianity, Abraham Nerkambe (formerly Halaiya), was driven from his Kaṇakka village, which itself was ostracized; much opposition to his conversion, even from his wife. Large drop in school

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attendance coinciding with the conversion and the take-over of some government schools by the Basel Mission. Crops partially destroyed through drought; blamed by Badagas on a curse from the Christian preachers, and by the missionaries on Badaga idolatry.

1859 Continuing drought. By now, ten mission schools opened.

1863 Legislation to stop private parties clearing land to farm in reserved forests. Famine and some migration of Badagas away from their native villages; this was blamed on the missionaries, who were preaching that Christ was responsible for all that happens. The continuing conversions usually attributed by Badagas to sorcery; very low school attendance. Further government order prohibiting the annual fire-walking ceremony.

1864 A Badaga 'oracle' when questioned by villagers indicated the 'English god' was dangerous and evil-intentioned. Consecration of protestant chapel at Ne:rikambe.

1864-1884 Land Settlement: registration of all land holdings and the real end to swidden farming.

1865 Some headmen pulled down their temples and built new but bigger ones, for the first time in brick. Famine on the Nilgiris; drought blamed by Badagas on their gods losing power. A promise reportedly made by the god Irabattaraya to come to the plateau to cure the sick and destroy the missionaries; many disappointed that he did not come.

1873 A Badaga near Wellington became a deathbed convert to the Roman Catholic faith.

1875 Massacre of eighteen Kurumbas by Badagas armed with axes; this in retaliation for a fever among the Badagas.

1876 Monsoons failed; cholera epidemic among Badagas.

1877 Smallpox and cholera epidemics and dysentery on the Nilgiris and famine throughout South India; grain prices double the usual; heavy immigration of starving unemployed people from plains near the Nilgiris; among Badagas much loss of faith in the efficacy of Hindu rituals, and some conversions.

1880 By now 183 Badagas converted to Lutheranism since 1858, and the process continuing slowly; ostracism and physical fighting still associated with each conversion.

1882 Madras Forest Act: defined forest boundaries and further restricted the cutting of timber. Family of a Kurumba

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sorcerer killed by Badagas and Todas, after three sudden deaths in a Badaga headman's family.

1884 Conclusion of Final Land Settlement (1881-1884). Drought in Nilgiris, followed by crop failure.

1887 Some smallpox; school attendance decreased following a series of conversions. Kurumba shot by a Badaga whose wife he had bewitched.

1889 First mission school opened in Kundena:du, at Bikkatti, by request of 'a friendly Badaga'.

1890-1910 'Bible women' (South Indian Christians) active in trying to convert Badaga women; very little success.

1891 Massacre of Kurumbas by Badagas.

1897 Opium-eating noted to be on the increase. Factions formed among Ha:ruvas over who should have precedence in walking over fire at their Mahalinga festival.

1900 Typhoid epidemic and famine among Badagas; earthquake in Nilgiris; massacre of Kurumbas by Badagas.

1901 Conversion of Kereha:da headman's daughter; attempt to isolate the Badagas of that area from the rest of their community.

1902-1903 Epidemic of plague among Badagas.

1904 Police used to suppress Badaga persecution of a new group of converts; after this date there was no further physical harrassment of Christians.

1904-1905 Plague among Badagas.

1906 Minor earthquake in the Nilgiris; houses shook. Much higher rate of intoxication than in previous years. By now about eight hundred protestant converts.

The cut-off date of 1906 in this skeleton history is somewhat arbitrary; nevertheless it is clear that the misfortunes that dogged the Badagas became considerably less frequent after this date. In 1907 the converts were having factional disputes amongst themselves.

FACTORS LEADING TO STRESS

Biographical material in publications of the Basel Evangelical Lutheran Mission and in the minutes of the Ke:ti parish for the

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252 visiting affine, for otherwise he will conclude that he is not welcome
[514] in the house. One should eat with one's relatives: "If eaten with ten
people it is milk; if eaten by oneself it is shit." Several proverbs
252 suggest that not all affines are to be made welcome, though: "Is it
539 a bad thing for the affine who has become ruined and came [to us to
eat] a poor quality of finger millet and sour buttermilk?" The use-
less housewife is one who is too lazy to cook regularly: "Not caring
about her husband's hunger, a bad wife will eat the old food herself
[rather than cook]."

Earth-eating

261 2.4. The eating of earths is widespread in South India (Hooper and
Mann 1906: 254). We find that the practice has been reported in
particular from the part of Mysore whence the Badagas fled in the
sixteenth and seventeenth centuries, and that a baked edible clay is
even sold in the bazaars there (Thurston 1901: 121; Hooper and
Mann 1906: 256). In that part of Mysore the consumption of raw or
baked clay was fairly common among women especially, and was
said to bring no ill effects. An informant did however state that
261 among chronic earth-eaters "their appearance suggests that they
•164 are suffering from pernicious anaemia, the face being unnaturally
swollen or puffed and the abdomen distended, while the limbs are
shrunk except at the joints, which appear enlarged and are said to
be painful" (Thurston 1901: 121). Early medical officers reported
on the dire consequences of habitual earth-eating, especially men-
tioning anaemia and dysentery (Hooper and Mann 1906: 263-70).
[165] It has not been possible to discover whether the high death-rate due
to dysentery among Badagas (see 9.7) can be attributed in part to
this habit. Hooper and Mann (1906: 254) reported the practice as
261 widespread throughout India, and as chiefly confined to labourers
[171] and pregnant women, including Badagas. The practice is common
amongst them, pregnant women being especially fond of the earth,
even though older people abuse them for eating it because they do
not think it a foodstuff. The earth, said to have a pleasant taste and
smell, is yellowish-brown in colour, and is called *suttekaḷ*. It is actual-
ly a weathered feldspar, chemically aluminium silicate, and is the
261 same thing as kaolin. Humans do of course need traces of aluminium
146 in their diet. Dietary deficiency where soils are heavily leached might
thus explain the practice; as it perhaps does the eating of charcoal

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truate, I was told, until 18 or 19, long after they have married.) Husbands thus attach little importance to presence or absence of a hymen. A bride is nonetheless supposed to be a virgin on her first marriage, and so on the morning after her defloration her parents-in-law look for a bloodstain on the bed. If she is not in fact a virgin one of the couple will usually draw a little blood from some part of the body so as to make a stain. Whether or not the groom is responsible for her previous loss of virginity he will want a bloodstain to be found, for otherwise his parents may think he has fallen in love with a loose, unworthy girl. Badagas proverbially take a dim view of young women: "A young ox and a young girl are both inconstant: do not trust them" (Metz 1864: 94).

They have a kind of second wedding ceremony, held at about the seventh month of a girl's first pregnancy. The sexual aspect of this second ceremony is that on the following night the couple are supposed to sleep together and have intercourse. While the pregnant girl is not impure at the time of the actual ceremony, both she and her husband are considered so on the following morning. It is a ritual requirement that she carry all of their bedding to some stream, but not the usual water source, and wash it clean.

3.10. Badaga men, and less commonly women, can get a disease called *kanne no:* ("first sickness"), which is caused either by a young man's first sexual experience or by too much sexual activity in his early married years. It is a relatively rare illness, recognizable from the face and the accompanying fever. A patient is served only "cooling" foods till he recovers; he rests at home, and is also given *kodagu soppu* (made from velvety patchouli, etc.) as for any fever. The parents stop the couple from sleeping together for the time being; until fully recovered the patient will be permitted little or no coitus by his elders. This illness is said to be quite dangerous, whereas "too little" intercourse is not thought to have any bad effect on the body.

Menstrual Practices

3.11. Badaga therapists do not know why menstruation occurs, and simply attribute it to God's will. The intervals can vary, I was told, from 16 to 40 days, tending to be shorter in fat women. Among young women menses occurs every 18, 19 or 20 days, with 22 days as perhaps the maximum. With older women the period comes on

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853 the woman is startled, or if she comes into contact with a "bad wind" as we discuss below (5.4). When a nursing mother comes
[262] from a family known for its low milk yield she is given buttermilk, made from boiled cow's milk, and with it a rich diet of clarified butter and food made from little millet. She does no hard work and enjoys complete rest. (Nothing is rubbed onto the breast.)

5.3. If a nursing mother is eating irregularly, or having sweet things, or too much food, such behaviour can affect the nature of
853 her milk. To counteract its poorer quality a certain medicine can
278 be given to the child, but only between its fifth and twelfth months
759 (generally just in the fifth and sixth). It is made from two plants, *homogu* and false privet, used in the proportion 2:1 and baked with clarified butter. The material is then ground on a special stone and mixed at the same time with some of the mother's milk. A pinch of salt is usually added. Finally half as much butter as the volume of this mixture is added to it, and the resultant medicine is divided into three parts, each rolled into a ball 2 cms. in diameter. The baby swallows one of these balls on the morning, a second in the evening, and the third the next morning.

853 If a nursing mother eats too many sweet things, she may trans-
262 mit worms to her baby through the breast-milk. In fact, small
•164 children are much more liable to worms than their mothers. A woman thus may not have worms while her nursing infant does; and if she eats too many sweets in the eighth or ninth month of pregnancy, worms may appear in her child during the first three months of life.

853 5.4. A nursing mother is regularly afraid that if she goes near a
783 corpse or smells another birth, or if she smells anyone other than
784 her own husband in the early morning who has not yet bathed since coitus the night before, the breasts may cease to give milk. Some are even afraid that a sudden noise will have this effect, and others are afraid of hearing talk of any terrifying subject. This phenomenon of a "bad wind" associated with the polluting aspect of coitus, birth and death works in devious ways. When a newly delivered mother is in the room before another woman's delivery occurs she can stay there and the smell at the time of birth will not affect her; yet if she enters a room where a birth has just occurred the bad odour there can affect the flow of her milk.
853 If an adult dies in her presence her milk is not threatened by a
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representing 108 protective spells that had been said while it was being made, was put round the neck of a Badaga infant to protect him from all sorts of evil and illness. Nowadays a talisman is often worn instead. It consists of a tiny sheet of copper on which a magical symbol has been engraved, placed inside a silver cover, and tied round a child's neck after a hen or goat has been sacrificed. Both of these items were made by non-Badagas living in the Coimbatore Plain. Different kinds of talisman ward off illness, possession by ghosts, "bad winds," barrenness, failure in trading, or failure in courtship. Today a talisman is only bought after a child (or occasionally an adult) has been sick, to ward off a recurrence of that illness. In the last century children's talismans were reportedly "kneaded from earth and ashes taken from funeral pyres" (Reclus 1885: 232).

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THERMAL BURNS: DRY (*benda hunnu*)

5.24. Children sometimes have pus-filled swellings and rashes on the skin caused not by maladies so much as by earlier treatments. Thus one small boy reportedly had such wounds on the forehead, two over the nipples, two over the navel, two more to the right and left of it, and one on the abdomen, all caused by burning with the rhizome of the sweet flag. Girls often had slime smeared on their festering new tattoo wounds (Jagor 1876: 196; cf. 7.9).

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LEUKODERMA (*sullu*)

5.25. Albinoism occurs because the body is "overheated." Albinos generally die in infancy, but some "ripen" till they attain the colour of their parents. The disease appears after birth, it is said, and affects either some parts or the entire body. Today only certain Kurumbas still know the plants necessary for a herbal cure, although Badagas once knew them too.

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ALOPECIA AREATA (*tare mande*)

5.26. If a newborn child has scant hair or patchiness on the head, it is shaved half-a-dozen times, and then the head-shaving ceremony is held at an unusually early age. If this does not

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improve the hair, two other procedures can be followed. Either the hair is washed, using the bark of *toreko:ju* for soap; or else some tiny buds of common bracken are ground up till they form an oily paste. This is used as a shampoo for some days when washing the baby's head.

A disease that occurs among youngsters causes patchy baldness, as clumps of hair fall out. It is said that "insects" are eating at it and so they must be killed. A piece of hard, hairy bezoar stone, called "hair-diamond," is bought in a bazaar. It is dipped in milk and then rubbed onto the bald patch repeatedly until it bleeds. Then "the insects inside die," I was told.

5.27. "It is bad if a tooth sticks out; it is bad if a river passes beyond the river bank." Thus if a child's tooth is not growing in the right direction an older woman of the household soon tries to bend it into position. She works at this every morning after the child wakes up, and before he eats, for one or two weeks. There are two procedures: either the child sits by the fire and the tooth is held in a cloth that has been heated over the fire; or else the cloth is dipped in very cold water before use. *Mo:dha*, a mouth disease common among children, is described later (6.39).

5.28. In earlier days some therapists grew the nails of the left thumb and index finger for use in tonsilectomy. Tonsils were taken out after they ached or swelled so much that the child could not eat. Someone pressed the back of the tongue down with a cooking skillet, so that the child could not close his mouth, while others held his head and arms to keep him still. The therapist put her thumb and index finger down the throat and pinched the tonsils off with her long sharpened nails. (They could be thrown away anywhere.) A pancake made of fresh finger millet was then prepared and kept aside until it was cool and dry. Then it was cut into small pieces and these were

ORTHODONTICS

TONSILITIS (*tonde kaṭalu*)

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•164 WORMS

5.36. If a child has no appetite, and is troubled by nausea and watery feces then he is suffering from worms. These are the same kind of worms that are considered to aid in the digestive process (10.13). The illness is caused by eating too many sweet things. In the first phase there will be hundreds of small worms in the feces; then, if these are ignored, a few of the worms in the belly will grow big by eating up the smaller ones. Then a big worm will sometimes come out, either from the anus or from the mouth.

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The cure involves burning some rhizome of sweet flag in the flames of the hearth, but not in a pot. When the root is quite black, but not yet charcoal, it is powdered and mixed with an equal quantity of butter. Should this not be available, one can mix the root powder with clarified butter, a good vegetable oil, mother's milk, cow's milk, or else water, in this order of preference. One teaspoonful of the mixture is given to the child thrice daily, but no food except milk is given for one or two days after a worm has been found. After the medicine is administered, the worms generally come out through the anus, but sometimes through the mouth instead. If several worms are found twisted together in the feces, it means that small ones are still growing in the belly, and so the treatment has to be repeated to remove those that remain. But otherwise the treatment is not continued till the second day if the child recovers on the first.

In some instances a worm may die inside the child, in which case he will be constantly crying, and will neither eat nor drink. Some clarified butter or oil must then be forced into his mouth, and this will release the dead worm.

([164]) CRETINISM (*karu hotte*)

5.37. If a child is not eating properly and has diarrhoea, a distended stomach and lean limbs, then he needs a particular medicine. Some whitish clay is heated in a fire until it is red hot and

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759 then dropped into gingelly oil, which boils. The material is later taken out and is powdery. About a quarter teaspoonful of this is swallowed and the child will improve.

●[164] If however the stomach is extremely swollen and the legs thin, this is because of a *ka:male*. The treatment is then to burn the child's stomach with a piece of glowing iron or charcoal (cf. 7.9).

INFECTIVE HEPATITIS (*bara ka:male*)

164 Chicken-pox, a common childhood disease, is also discussed later (7.2), along with the other diseases that are believed to be inflicted by goddesses.

278 757 5.38. Rue is used as a medicine for children's fever. "Even the aroma from the leaves tied in bundles and hung inside the house is said to be effective in allaying fever" (Krishnamurthi 1953 : 144).

5.39. Fenugreek is soaked, crushed, and rolled with a little water into balls : these used to be fed to young children who were lean or suffering from "consumption."

PHTHISIS (*so:gano:*)

828 755 757 5.40. When a small child falls down and is frightened, the mother immediately picks up a piece of mud from that very place and touches it to the tip of the child's tongue. This stops the child from being afraid of falling. If a child has been otherwise frightened it must immediately be covered with a blanket and given a steam bath under it, by means of water which an adult pours onto a red-hot knife blade being held under the blanket.

FRIGHT (*anjike*)

756 755 828 5.41. Generally it is an old man who knows therapeutic spells, and these are only used to cure children who are feverish and frightened; their symptoms being that they are afraid of the dark, crying at night, having nightmares, or not eating properly. A suffering child is taken to the therapist very early in the morning, since the spells have to be said before the child eats. If the therapist lives a long way from the child, he will

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6 SOME COMMON BADAGA MALADIES

"This cure has been known to work sometimes."

(Informant's comment)

Skin Diseases

BENIGN WART

6.1. There are at least three kinds of wart or swelling. In Baḍaga a small one is called *ne:ga:le*; a bigger one is *ga:le*; and the most dangerous kind, a swelling in unseen areas of the body is called *bippiri* (when inside limb joints) or sometimes *kaṇḍa ma:le* (goitre, only on the neck). To discover which kind of swelling she is dealing with, the therapist first makes a trial with the medicine for a small wart. A piece of the tuber of wild yam is ground up to produce a small quantity of liquid, which is dabbed on the wart. If more of the medicine is then required the whole tuber is ground to powder, which is mixed with woman's milk or, failing that, cow's milk or even water (curds or clarified butter cannot be used for this). The mixture is applied to the swelling and dried near a fire. No cloth is tied over it. This procedure is followed through once, twice or thrice, and if the swelling is small it will be cured. Alternatively the juice of *alavan giḍu* can be touched on a wart, or

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this purpose the fresh dung of a young cow which has never calved is preferred: Badagas can tell at a glance if it is the right kind of animal because it should digest its food well. Every four hours the therapist removes the thread, lets the pus flow, and when this stops puts the thread back in the hole. Several times a day, when the cowdung becomes too dry, a fresh coating of it is applied. The swelling should cure in two or three days by this method.

MELANOMA (*bippiri*)

6.3. If when the medicine is first applied the swelling is too big to be called a *ne:ga:le*, but it does not have a head on it, then it is a case of *bippiri*. This can in fact get started alongside a *ga : le*, if all the pus is not removed from the latter. The *bippiri* has to be treated with the bark of a tree (details unavailable).

752 GOITRE (*kaṇḍa ma:le*)

A goitre is punctured with red-hot needles; or else treated with thorn-apple. Other big swellings are usually cut off, especially if they fail to respond to the above-mentioned medicines. During the present century such surgery has been done with a razor, but before that a piece of broken bottle glass was used.

826 164 753 DEPIGMENTATION OF SKIN, OR VITILIGO (*sullu*)

6.4. Patches of white skin on the body are called *sullu*. This is a disease for which there is no medicine. It is caused by the bite of the blindworm (*Typhlops braminus*), even when the patient is unaware he has been bitten.

164 (*taddu*)

6.5. Another disease which causes dry light coloured patches on the facial skin is *taddu*. Before going to sleep patients put oil on these patches. There is also another treatment: a relative takes a piece of dry cowdung, and rubs or touches it against the patches, while saying a special formula. The important thing is for the relative to be of the opposite sex to the patient, mature but unmarried, and in the relationship of a classificatory spouse—someone the patient might later want to marry (Badagas are polygynous). As this person touches

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602 755 the cowdung to the patches he says: "I am in the relation of sister's husband to you; medicine for *taddu*." In the case of a woman helper she would change the wording to: "I am related as a brother's wife to you . . ." The formula and the touching are done three times.

757 6.6. If similar patches occur elsewhere on the body they are not considered to be *taddu* and are treated differently, as itches. In the old days this cure involved grinding a leaf of chewing tobacco, mixing it with goat dung and water, and putting this onto the patchy skin where it would dry. If however the patch itself is not dry as in *taddu*, then it is given the more usual treatment for itch. [262] (Two vegetables, the marrow and the red onion, will cause itching if eaten in large quantities).

164 6.7. Another skin disease is called *a : ne gajji* ("elephant sores"). These are big watery sores on parts of the body which the patient cannot see, such as the back or the cheek. To treat them *ka : vi kallu*, a brown stone, is ground up and mixed with water to form a paste. A sketch of an elephant is made with this on a piece of wood or nowadays slate, and the same paste is also applied to the watery sore once daily for at least three days, during which time it should not be washed off. Each time the paste is being applied the patient stares at the drawing; and he should also stare at it every ten or fifteen minutes during the entire period he is awake during the treatment. If the sore is especially big the paste will be applied morning and evening for several days. Care must be taken that no water falls on the paste. It is allowed to dry on the sore, and with the help of a fire if necessary. After three days the paste can be washed off, but if the sore is still evident another dose of the paste is applied for a few more days. During the entire period of the treatment the patient should not eat any chilies or salt.

ANGIONEUROTIC EDEMA (*a : ne gajji*)

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164 6.8. Tinea affects the feet during the rainy season.

TINEA

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(*gore huṇṇu*) To cure it they are washed clean with hot water and anointed with butter, or nowadays coconut oil, before the patient goes to bed. 757

ALOPECIA (*bo:le maṇḍe*) 6.9. A treatment for baldness is to rub deer's blood into the scalp. (755)

DERMATITIS VENENATA (*bava:ci turi*) 6.10. When women are gathering firewood they are careful to avoid contact with a creeper called *bava:ci*, which grows in the shade of the forest. If it is broken and its juice touches the skin, itches develop all over the body. The treatment is to touch the itching parts with *go:re* (the name of many species; cf. trilingual index), a plant that grows in damp places. After about a week the itching stops. (764)

ECZEMA (*hu:huṇṇu*) 6.11. Eczema is reportedly treated by grinding up the leaves of dead-nettle and applying the mixture with lime juice to the affected areas (Krishnamurthi 1953: 145). If there is prolonged itching on one part of the body, the skin is trimmed off and then medicine for a laceration is applied.

Lacerations

LACERATIONS (*gaiya*) 6.12. Something intolerable is referred to by the proverb, "It's like filling a wound in the stomach with salt." Another proverb emphasizes the need to take great care of lacerations: "Isn't the wound like an eye?" In general one should not interfere with a wound once it has been treated. First-aid for a cut, if there is no opportunity to get the necessary plants, is to burn an old rag and put the ashes on the wound. 752 (539)

6.13. A cut is not washed before treatment, even if it is on a dirty foot. It may indeed be tied up temporarily with a dirty cloth. Medicines to put on lacerations have changed over the years. Before the British reached the District in 1819 it was customary to use pink marsh balsam or red liberty cap plants. Later, when the geranium had been introduced into the Hills, its younger leaves were used instead. These are ground with salt and two or 752 278

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136 752 [278] these, is the flea, "which is very numerous in the early part of the monsoon. They are put to flight by [drinking] an infusion of a plant called by the natives Wassumboo [*vasambu*], (*Acorus calamus*), which is indigenous in the Hills." (Baikie 1857: 110)

6.19. Badagas recognize several types of lice and tick. "All live on the dirt of the body or clothes and are spontaneously generated from it," I was told. It is therefore a shameful matter to have these parasites, when, as one proverb puts it, "Small insects are browsing on the head of an uncaring man." To prevent lice, people wash themselves [515] daily and also shave off pubic hair (cf. 2.13). Epi- ●[164] demics of relapsing fever have spread from time to time through the community with the help of body lice (Madras 1928: 63).

136 752 539 6.20. It is recognized that if the bites of larger animals are not cared for properly they may prove fatal, as one proverb warns: "The person scratched by a porcupine cannot return to the] village; a person scratched by a hyena cannot [return to the] yard." Also in the same vein is this one: "The man who is torn by the ibex is not for the house-yard; the man who is torn by the pig is not for the village"; in short, he is finished. The rarest biting animal, now 136 nearly extinct in the Nilgiris, is the tiger. Only tigers that are wounded in the face or suffer from other ailments that prevent them from hunting effectively will become man-eaters (Anderson 1967: *passim*). 136 There have been few recent cases of tigers mauling 752 Badagas, and there is no specific treatment for such wounds beyond the above-mentioned cures for lacerations. Such treatment is also attempted when Badagas are gored by cattle, primarily buffaloes.

6.21. In a case of dog-bite a small amount of lime is put on the wound, and a small copper coin tied on top of this. The patient should not bathe for three days; on the fourth day the bandage can be removed and the wound is cured.

None but a mad jackal would bite a man. Villagers

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available kind of oil is smoothed over the body, but without hard rubbing.

6.24. A scorpion-bite is more dangerous than a bee sting, though less so than snake-bite. The affliction cannot become too serious because only one or two scorpions might bite someone at the same time. The bite is washed and some oil put on the swelling.

Cranial Maladies

6.25. Badagas have no knowledge of trephining, and perform no brain operations. None the less they do try to treat an aching head by external means. Thus Dr K.I. Simon describes a case of a man aged 96:

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> He developed most excruciating pain in his forehead . . . This poor man got the attack every half-hour or even at shorter intervals and it lasted for ten to fifteen minutes. This goes on day and night. When the attack comes on two young men tie round his head a rope or mull and pull it as tight as they can. Thus this old man falls down on this bed and gets a short relief for some minutes . . . Then I put him on vitamin injections. After two days the pain completely disappeared. (Ketti Medical Mission 1947: 4-5)

For such severe headaches it was usual to tie a woman's upper breast-cord or a piece of cloth tightly round the cranium, and leave it thus till the headache ceased.

164 MIGRAINE (*otte tale*)

6.26. Some people have a pain appearing on the same side of the cranium every day. It starts early in the morning, stops after the sun has passed its zenith, and then commences again the next morning. To cure this, the patient makes an oath to God, in his own home, that he will not eat one

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Eyesight

732 BAD VISION

6.29. Badagas can test their eyesight with the help of the moon. On the night of the new moon or the one after that a man is asked if he can see a small line on the lower edge of the moon while it is low in the sky. If he cannot see this, his sight is defective. He must then take a leaf of the castor-oil plant or "some other jungle plant," and keep it on the top of his head for a month, after which he is tested again. "This cure has been known to work sometimes," I am told.

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6.30. When insects and other small objects get into the eye, somebody blows on a piece of cloth—such as the corner of a loincloth — and when it is warm he wipes the surface of the sufferer's eye with it.

732 BLINDNESS (*kurudu*)

6.31. Badagas have no cure for blindness, and if the sight is defective glasses are nowadays the only normal remedy. One can even find ready-made glasses of varying prescriptions in the bazaars. It is generally believed that if one prays to the sun at sunrise while looking into it, vision will remain good. The deaf and the blind cannot enjoy life, as one proverb maintains: "For a man without ears, what use is a musical instrument? For a man without eyes, what use is the countryside?"

(416)
(782)

164 757 TRACHOMA OR CONJUNCTIVITIS (*keppu kaṇṇu*)

6.32. If the eye turns red, it is because there is too much "heat" in the body: this can be lessened by extra sleep and a change of diet. The patient should also bathe two or three times daily, using the bark of pellitory as soap: it is "cooling" to the eye and the brain, and so brings health.

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6.33. If there is a pain behind the eye, the patient lies on his back with eyes wide open. The best cure is then to squirt five to ten shots of milk directly from a buffalo's teat into his eye: failing buffalo's milk, cow's milk can be administered in the same way. (Only very gentle cattle can be trusted not to step on the patient.) A simpler but less effective treatment is for a woman to squirt five to ten shots

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bud and leaves in her mouth for a minute of two, and while keeping them there blows through her clenched fist into the patient's ear (as in 6.35), on the same side of the head as the afflicted eye; but she does not blow on the eye itself. This is done three times, and after each blow the therapist asks, "Is it gone?" In serious cases the white mark does not clear up in one day: then this treatment is given for three consecutive days, early in the morning before the patient takes any food or drink.

●164 [753] [776] ACUTE CONJUNCTIVITIS (*kaṇṇu noi*)

6.37 Yet another eye disease is called "eye goddess," and since it is considered the work of a goddess Badagas behave as they do when the smallpox goddess comes. Unlike the above-mentioned eye diseases, this one is contagious. The eyes become red, they weep, ache, and swell up. When the patient awakens he cannot open his eyes because a white pus sticks the lids together. If he tears them open the eyes will itch and be more troublesome still. Many people, I am told, have blinded themselves by attempting to open the lids.

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The eyes should be washed very gently in the morning with the soft leaf of velvety patchouli or related species (*koḍaṅgu*) and some cold water: this will open them. A medicine is administered on three different days, chosen from the following: the third, fifth, seventh, ninth or eleventh days from the start of the illness. The therapist puts into some fresh water a number of white dead-nettle flowers, as many in fact as the number of days since the illness began. He then splashes the water and flowers with his fingers onto the brow of the patient; splashing it as many times as the number of dayss ince the illness began. Following the third occasion on which he does this, he must add leaves of the nim tree to the remaining water. This water must be at body-temperature, and is used to wash the patient's entire body. Should the water be too hot the therapist must simply wait till it has cooled enough, and may not add cold water to it. After this bath the patient does

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not dry himself, but instead sits covered with a cotton cloth under which some incense is burnt to create a thick smoke. After this a cure can be expected. During the entire course of the illness the patient must eat only the "cooling" foods such as milk and fruits, and must abstain from things like chili. Also he should use no woollen material for clothing or bedding.

Mouth, Nose and Throat

DENTISTRY 752
(304)
(539)
(856)

6.38. Teeth are not filed in any way nor are cavities filled. If a tooth is loose, it is pulled out with the fingers, or else an attempt is made to cure it by rubbing it with ginger. There is a proverb which warns, "The son who is spurning his father is no good; the tooth that is protruding from the lips is no good." As we have seen (5.27), a woman will try to bend a child's misshapen tooth into position with a cloth.

PYORRHOEA 164
(*ma:dua*)
(753)
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6.39. The major mouth disease is quickly detected because a very strong odour is noticeable even from some feet away. Although mainly a children's disease, it can affect adults. Badagas believe that "germs" eat the teeth: the disease can rot them, and a sufferer cannot put anything in his mouth because it is so painful. The mouth therefore has to be made insensitive so that he can eat. A local anaesthetic is therefore made from galls found on oak, obtained from a tree in the plains: they are over 2 cms in diameter and are ground up with woman's milk or cow's milk to form a paste, which is then rubbed all over the mouth cavity.

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The medicine for *ma:dua* is made from two fruits that can now be bought in shops. One is the unripe *anila kae* and the other nutmeg; they are ground together in equal amounts and mixed with woman's milk or cow's milk or else water. This solution is taken early in the morning, before breakfast, and again before the evening meal. If

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the disease is quite advanced a third dose is taken before the midday meal. After swallowing the medicine the patient must rest for at least a half hour before eating.

There is a treatment to prevent *ma:dua*, in the form of ginger rhizome. It must be rubbed on the teeth for up to an hour whenever the patient has time. If he does not take care of the mouth in this way, the disease can eat into the lip to cause hare-lip. It must be treated in the early stages because if left for even a week it can become very dangerous. Should it spread from the mouth to the stomach it can kill a child, as there is no effective medicine for *ma:dua* once it has reached the stomach.

The disease also spreads very quickly from the mouth to the nose, and can eat the nose away. Although recognized to be the same disease it is then called *pi:nasi*, and is treated with an extra medicine. This is put in the nostrils and onto the exterior by a specialist who may treat the patient for several weeks. I was unable to learn about its composition.

6.40. While *ma:dua* is not very contagious, there is another disease called *be:koko* which is highly contagious, and is passed to others on the eating and drinking vessels. It develops in the opposite way from *ma:dua*, starting in the stomach and spreading to the mouth. It is characterized by itching in the mouth, and is not very dangerous. Since the illness is caused by excessive "heat" in the body, everything possible is done to cool the body. Thus the patient has to be washed with *toreko:lu* bark to cool his head; he eats "cooling" foods; and swallows the *anila kae* and nutmeg powdered in milk.

TONSILITIS (*tonde kajalu*)

6.41. To cure swollen tonsils, a medicine made of leaves of thorn-apple is administered. In extreme cases the therapist removes the tonsils with two sharpened finger-nails of the left hand (cf. 5.28).

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Limbs

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6.42. If a "nerve" in the arm or leg gets "knotted," and cannot be straightened out by massage, then a therapist powders some salt in a mortar and applies it to the affected area. The "knot" then disappears without further treatment.

SPRAIN (*sikkalu*)

6.43. When a wrist or ankle is sprained, but not too badly, any kind of oil is rubbed into it; formerly butter or clarified butter was used. If this does not prove effective, then some Jamaican switch sorrel buds are immersed in boiling water for a minute or two (Krishnamurthi 1953: 145). The buds are then removed, placed on the sprain, and bandaged tightly in position. Theban dage is removed after 24 hours, but the buds have stuck to the skin and have to be washed off gently. This process is repeated once or perhaps twice more and the sprain will be cured.

ELEPHANTIASIS (*a:ne ka:lu*) 164●

6.44. Elephantiasis, a disease in which the legs become grossly swollen, is unknown in the Nilgiri Hills, and my informant Sithamma had not heard of a cure for it either.

AMPUTATION 752

Badagas never amputate a limb, nor even damaged fingers. Even if a limb is crushed under a rock the sufferer retains it. In very rare cases a person may have to walk with one or two crutches; and in the past he would have used walking-sticks instead.

ULCERATION (*gi:vu*) 164

A doctor practising scientific medicine has reported cases of gross neglect of ulcerations on the legs of Badagas. Thus, "A Hindu boy of 16...with extensive ulceration of the right leg. It was a case of shocking neglect for over six weeks; only cowdung on green leaves had been applied as a dressing. We saw maggots in the wound...." (Ketti Medical Mission 1938:6; cf. 6.13). Women specially are the victims of this kind of suffering: "...Pannamal was carried to the hospital quite helpless. Three great abscesses on buttock and

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thigh, an ulcer on the knee and extensive cellulitis of the calf muscle caused the most excruciating pain at the slightest movement. She had been in this state at home for over a month, quite neglected by the family. . . . We opened the abscesses and gave penicillin in large doses. For over two months she had to be treated. . ." (Ketti Medical Mission 1953: 4-5).

6.45. Badaga youths once used to engage in a non-ceremonial procedure designed to strengthen their wrists so that they could manage to milk large numbers of buffalo. A fire was made by rubbing fire-sticks together, during the dry summer months when men were out on the downland grazing their herds. A helper would then take a piece of glowing charcoal and burn one or two lines across the arms just above the back of the wrists. The burns were then left to heal (Thurston 1909: 83). Something similar was done with a branding iron on the front thighs of oxen, with a view to making them strong for ploughing.

FRACTURE (*oḍeda ilu*)

6.46. The Badaga technique for setting bones involves first feeling to discover whether a bone is broken. If it is, the therapist manipulates it until it is in the correct position. She then collects either Jamaican switch sorrel or eucalyptus leaves and ties a thick pad of them at the point of fracture. For a broken arm or leg two or three splints of wood are then tied along the limb, or a bamboo milk container (*aṇḍe*) is split in two for this purpose. The patient rests for three days and nights without moving the limb. After that the therapist removes the splints and leaves, and checks the fracture by manipulation. If it is not yet repaired another pad of leaves is tied on with splints for a further three days. This process may have to be repeated often, for larger bones can take a month to heal. In the case of a fractured rib, cranium or jaw, the leaves are ground up and applied as a thick paste to the fracture. A cloth is then tied over

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Thorax and Abdomen

ASTHMA (*kemmalu*)

6.48. A cure for what is now called asthma is to obtain a few lumps of tiger flesh and roast them. The meat is then eaten, perhaps in milk. 757 [164

Another cure for asthma involves swallowing a paste. This is made by powdering a seed of the sacred—and imported—mock olive and mixing it with water.

6.49. If one wears a string of these same mock olive seeds round the neck and across the chest, he will ward off a disease which attacks the heart. This procedure will at the same time allow the person to continue speaking right up to the last moment of life. 751

TUBERCULOSIS (*so:ga ro:ga*)

6.50. If one occasionally touches the small seeds of the sacred basil, he will not be attacked by what we call tuberculosis. This is in Badagu called *so:ga ro:ga*, "making the body fall away," and is treated like a fever (cf. 6.67). It cannot however be cured, and the patient dies in five to ten years. [164

DYSPEPSIA (*iguḍa*)

6.51. Adults with indigestion or a lack of appetite are given a medicine of a whitish clay, which is heated in a fire until red hot, and then dropped into some gingelly oil. When the clay is removed from this it is powdery, and perhaps a half teaspoonful of it is administered to the patient. 759 164

PYROSIS (*surusuru*)

Heartburn is generally cured by having the patient eat a half or whole block of crude sugar, or drink some milk.

6.52. To cure a pain in the side the sufferer takes a plate and puts a roughly made lamp of cowdung on it. This is filled with clarified butter and a lighted wick floats on that. The wick is covered with a drinking glass, and after a while the flame goes out and a vacuum is created. When this vacuum becomes broken and the glass can be picked up from the plate the pain should disappear. If it does not do so immediately, it will certainly go away within three days. 755

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164 754 6.53. Badagas sometimes attribute stomach pains to sorcery. Witness a nineteenth century account:

> . . .he complained. . .that there was a hardness in his stomach, as if there was a piece of wood in it. . .A few days after, however, I was ... informed that the man had died, and was asked to attend the funeral. On my reaching the spot, the father of the deceased begged me earnestly to open and examine the body. . ., because he and all his relations were convinced that one of the sacrificing Kurumbas had been bribed . . . to destroy the lad's life by magic. I declined to interfere, defend the poor Kurumba. . . On my repairing to the place again next morning. . .I was met by all the people, who told me that. . . on examining the ashes of the burnt corpse in their presence, the sacrificing Kurumba himself had taken from the stomach, two legs of a fowl and a piece of cactus, reduced to charcoal, and also some raw grain half consumed by the flames; which fully accounted for the violent pain in that region. . .(Metz 1864 : 121-22).

POISONING (*maddu timbadu*)

752 [539] 6.54. A proverb asks rhetorically, "If a man has eaten poison and is dying, will he survive if given milk?" Badagas believe that milk is not an antidote for poison, and that the only cure is to make the man vomit. This is simply achieved by forcing him to swallow cowdung mixed with onion or garlic, or alternatively a mixture of dog dung and garlic.

CONSTIPATION (*sege*)

164 759 6.55. Constipation occurs because the body is "over-heated"; it is commonly a result of eating a large plantain or the olive linden fruit. One earlier treatment called for an opium poppy head; but because of the difficulty of getting it the medicine is no longer prepared. In that treatment a poppy head was soaked in a pot of water over-

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night, after it had been carefully tied up in a cloth so that the seeds would not fall out. Although the poppy head could be green or dried it would be more effective if green. The next day it was taken out of the cloth and ground up with some milk: this mixture was swallowed by the patient very early in the morning, before taking any other food. The therapist varied the dosage according to the patient's age, and would continue the treatment if necessary for up to three days.

6.56. An alternative treatment for constipation uses the bud of the hill gooseberry or, in seasons when it has no bud, the leaf shoots. This medicine, which is more effective than the other (6.55); is also taken for one, two or three days before the first meal. As with the poppy head, these buds are ground up with milk and eaten by the sufferer. Some other medicament is tried if the condition does not clear up in three days. Castor oil is now a common laxative: one or 1½ teaspoonfuls are swallowed, and some is also put onto the rib of a tobacco leaf, which is inserted into the rectum (cf. 5.34).

HEMORRHOIDS (*mu:la*)

6.57. Piles is likewise caused by "over-heating" of the body, and therefore the patient is to be given "cooling" foods. Vegetarians eat milk products, non-vegetarians eat certain eggs and meat that are said to be "cooling." Patients also eat *nella ki:re*, an amaranth which grows wild. This is baked with clarified butter (without being first ground up), and is eaten with each meal for about a week.

If when a person defecates a hemorrhoid protrudes, the therapist puts clarified butter on a castor-oil leaf and gently pushes the protrusion back into the rectum with it. This is repeated every time the hemorrhoid appears.

DYSENTERY (*mukkalotte*)

6.58. Another ailment of the belly is said to be "very prevalent in the Badaga villages during the hot months when there is scarcity of water"

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(Madras 1928 : 63). It affects children and weak men, when the colon "moves out of position," and is marked by vomiting or diarrhoea, or both. The curing is most often done by a woman therapist, and each has her own preference as to how best to position the patient. Thus he stands up or lies down, as the case may be, while the therapist runs both hands up and down the abdomen. She presses on it too, so as to change the position of the colon. Then for the next several days the patient must rest, take little food, and not exert himself in any way. One female therapist used to make the patient stand on his head in the small depression of the pounding-stone that is sunk in the floor, and he was held upside-down thus while she rubbed his abdomen. Two other therapists made the patient lie supine, and then slapped his stomach. Yet another was reported to have treated a man with dysentery as follows : "He was laid on his back on the floor and the woman performed a sort of stepdance on his abdomen for a quarter of an hour. Then he was turned to face downwards and the stamping process was applied to the small of his back. Apparently they believe that if by some chance the loops of the bowels have changed from their right position, this drastic method will correct them." (Ketti Medical Mission 1943 : 6)

If the condition persists after one or two weeks, patient and therapist go to a local waterfall at four or five in the morning. There the colon is manipulated into position, and then the patient lies under the waterfall for an hour or two, with cold water falling onto his stomach. Even if he becomes unconscious he is kept in that position. Should he live in an area with no waterfall nearby, the same effect is obtained by having him lie on the ground while numerous pots of water are poured on him from a height. For six months after the treatment the patient does no strenuous work ; but if he is fully cured afterwards he can do any-

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thing. The leathery skins of mangosteen fruit are also reported to cure dysentery when soaked in hot water which is drunk by the patient (Krishnamurthi 1953 : 145).

WORMS

6.59. In adults the same symptoms may indicate difficulties with worms or with a displaced colon. In order to distinguish between the two problems, a therapist rubs some oil onto the belly, and as he does so there is a sound of liquid moving inside. If that noise continues after the rubbing, it means that worms are growing inside the belly. A treatment for a displaced colon is to tie a very cold, wet cloth on the belly in the morning. If the diarrhoea problem subsides for some time, this means it is not worms that are responsible.

Adults also suffer from worms because of eating too much sweet food. The same medicine is made for them as for children (5.36), but they are given two or three teaspoonfuls of it every morning and evening, not thrice daily, until they recover.

ULCER (*hotte huṇṇu*)

6.60. It is said that ulcers can be cured by swallowing the ground leaves of the dead nettle mixed with lime juice (Krishnamurthi 1953 : 145).

Genitals

6.61. Neither the Badagas nor any of the neighbouring tribes practise circumcision or clitoridectomy. Some men have recently had vasectomies at the Government Hospital, in connection with the family planning programme.

VENEREAL DISEASE

'Other South Indians sometimes claim there are eighteen different kinds of genital disease, but the Badagas know of only two kinds: *su:le*, which originates in women, and *belle*, which originates in men. Women cannot be troubled by *su:le*, but men suffer when they catch it from women; similarly, men are not afflicted by *belle*, but women can catch it from men. I was told that a century ago nearly all of the Badaga, Toda, Kota, Kurumba

and Irula women had *belle*, whereas today only a tiny minority of them do.

People with either of these diseases are generally weak and unhealthy. *Su:le* can be recognized by the watery sores, but *belle* cannot be seen because it is "inside the body" of men. A therapist can tell from a person's face whether he has either disease. The remedy is to eat opium, as often as three times daily. In earlier days Badaga youths were encouraged to have relations with a variety of women so that they would catch *su:le* early in life; for if it first attacked them when much older and weaker it could kill them. Since they deliberately tried to spread the disease in this manner, it tended to be more widespread among the Badagas than among other tribal groups.

Nowadays it is a great disgrace if a person is known to have a venereal disease and he is shunned socially. The seriousness with which it is treated is adumbrated in the proverb, "A debt is like a woman's disease (*su:le*)." In general the disease is still brought into the community by men who have had relations with non-Badaga women, such as urban prostitutes. If a man knows that he is infected he avoids infecting his wife.

It is said that a particularly virulent form of the disease can only be cured by intercourse with a donkey. If the donkey dies immediately afterwards, the man is presumed cured. In one village where I stayed a man borrowed the washerman's donkey, but was dismayed to find that it did not die.

STERILITY

6.62. Aside from venereal disease, the only other serious reproductive problem for Badaga is infertility, as we have seen (3.17). To understand this, it must be stated that they do not traditionally connect conception with the fertilization of an ovum, but see it as an effect of satisfaction in the minds of the couple. Badagas do believe men can be sterile, but so rarely that only one man would

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sad and discouraged, return home in the full conviction that the expenses they have been put to and the pains they have taken have been of no avail. (Dubois 1906 : 594-95)

More recently it has also been reported that sterile women attended the popular festival of the goddess Ma:riamma at Ka:ramaḍai, near the eastern foot of the Nilgiris in Coimbatore District, to have intercourse with religious mendicants there in the hope of getting children. Such unpleasant procedures, resorted to by Badaga, Tamilian and Kanarese pilgrims alike, have long since ceased to occur, but childless couples still make vows at the Ka:ramaḍai festival "Miles" : (1933 267).

6.65. A liquid medicine (details unrecorded) otherwise given to newly delivered mothers (cf. 4.11) is administered to a person who cannot urinate. This condition and the associated swollen bladder, caused by excess of "heat" in the body, are relieved by the medicine.

URETHRITIS (*sese*)

Fevers

6.66. The Badagas like the English have a saying, "If you are suffering from a cold, take extra food; if suffering from a fever, take little food." There are different kinds of fever, and they can affect people of all ages, but one medicine can be taken for all kinds. The shoots and smaller leaves of the velvety patchouli and related species (*koḍaṅgu*) are ground up and the juice from them mixed with some salt. This is swallowed, and is said to be more effective than quinine. In the early nineteeth century opium was used as a prophylactic against fever (Price 1908: 224).

FEVER (*jara*)

6.67. The Kurumbas knew of a now-forgotten twig or root which, when smelled fresh, dispelled fever. The present medicine of the Badagas makes use instead of the nest of the red-headed fantail warbler

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Cisitcola exilis erythrocephala), which incorporates parts of that same plant. Therapists who collect the nests only take disused ones, which they find in jungle bushes. For the medicine one large nest is pounded up and burnt in the pounding-hole (cf. 6.58). The patient sits next to this hole, his body covered with a blanket, and inhales the fumes from the burning nest. The treatment is followed for three consecutive mornings, before the patient goes to bathe or do anything else. It is only used for a slight fever which has lasted for some days or weeks.

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6.68. The treatment for a fever caused by fright involves a sweat bath. A steel knife is made red hot, put on a plate, the patient's head held over it, and then both plate and patient are covered with a blanket. Once this is done cold water is poured over the knife, and the patient remains bathing in the steam under the blanket for five minutes. After this he drinks the water from the plate (together with any dirt in it, for it has come directly from the stream).

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SINUS INFECTION (*negadi*)

RHEUMATISM (*baibu*)

PNEUMONIA

TYPHOID (*na:ḍu no:*)

6.69. When a person is tired much of the time, feels thirsty, has heartburn and reddish eyes, these are signs that the body is "overheated." Conversely if the nose and throat seem blocked, the head feels dizzy and the patient lacks energy, then there is "cold" in the body. Rheumatism can be caused by an excess of either heat or cold in the body. If caused by heat it is easily cured by "cooling" the body ; but if by cold it may be difficult to get the body "heated" sufficiently. A bad case of pneumonia is called by the general term *na:ḍu no:* ("country disease"), while a mild case is *gu:de no:*; but either way it is caused by "cold," is a contagious disease transmitted by the breath, and is treated as an ordinary fever. Typhoid is treated as a more severe fever.

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The treatment for fever is partly an appropriate adjustment of the patient's diet, and partly an oint-

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ment to be applied externally. The latter is made from the leaf of the aloe: a large one is heated over a fire and then twisted, and a tumbler of the juice it yields is collected. This is mixed with half a tumbler of finger millet flour, a quarter tumbler of ash, and an eighth of a tumbler of salt. A bigger quantity is mixed up in these proportions if the afflicted area is unusually large. The mixture is boiled till it becomes a paste and is dabbed over the affected part of the body. This procedure is followed once daily for three consecutive days, and only on the fourth day does the patient wash the paste off. If he is still not cured the treatment may be continued for another day or two; (but see below, 7.2).

General Illnesses of the Entire Body

6.70. General weakness is seen as normal in an old person, and there is no remedy for it. On the other hand, if an old person becomes ill he is treated with the appropriate medicine.

If health (*pittam*) increases its influence over the body out of proportion to the influence held by the other two aspects of man—behaviour and mind—then the body feels faint and vomiting occurs. The treatment for this imbalance is to cut a sweet lime in half, remove its seeds, and grind them together with cumin. This powder is mixed with the lime juice and swallowed by the patient early in the morning, before any other food or drink. This treatment may last from one to five days.

TRACHOMA OR CONJUNCTIVITIS (*kunna gaty*)

6.71. If an otherwise healthy man has a sudden headache and a nauseous sensation, then Badagas say a "wind" has struck him. This is the disease known as "Small Wind." Every adult can recognize its symptoms, for it is a common illness in the Nilgiris. The eyes turn red but not watery, and in a serious case vision is impaired. When a man is away from home and realizes he has been struck

4: Hockings E-5 (1962-1977) 1980
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by Small Wind, he should find some *hulla majjige* and eat it immediately (Krishnamurthi 1953 : 145). The proper medication for Small Wind is made from the following ingredients: two or three blades of Bermuda grass; a 2 cms ball of fresh, soft cowdung; a red onion 2 cms in size ; and a handful of very small *dodda hulla majjige* leaves. These are all ground together on a stone. Curds or failing that water are mixed with the resultant paste to make a liquid which the patient drinks. He then rests for the next ten to sixty minutes, during which time he should be cured. If not, then he has a disease other than Small Wind.

If instead of drinking the above medicine a man with the symptoms of Small Wind eats some food with chilies, or if he takes a bath, then the condition becomes more serious. It becomes very serious if he has sexual relations. Indeed, should he do all three of these things then the medicine for Small Wind cannot help him.

For such a serious case a different medicine, called *je:te maddu*, is prepared. One day's supply of it contains the following ingredients: one or two onions, no more than 2 cms in size; the hard dried fruit from the Indian quince tree, which is rubbed on a stone until less than a teaspoonful has been ground for use; two or three blades of Bermuda grass; some fresh cowdung; a handful of small *hulla majjige* leaves, with the flowers if possible; a dessertspoonful of cumin; less than a teaspoonful of kaolin, rubbed on a stone until powdered. There are two green plants which can be added but are not essential: a dessertspoonful of the leaves of rue and the same amount of cockspur flower leaves. These ingredients are all ground together and made into a liquid by the addition of curds. A large quantity has to be made, enough to cover the entire body. Although it is best to prepare a fresh supply each night, one supply can last for two days. The liquid is rubbed

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all over the patient by a therapist of the same sex, and this is only done at night-time. In addition the patient must swallow at least three mouthfuls of the medicine. A bed is prepared in a hot part of the house, and the patient lies on it and is entirely covered with as many rugs and blankets as possible. After 20 to 90 minutes of this the patient, who is not even allowed to bare his head, breaks into a sweat. If the patient is not cured on the first night of this treatment (generally because he has just had sexual relations), it is continued for the next two nights or even for five consecutive nights. If he is still not cured by then the therapist knows that the illness is something other than Small Wind.

Should the patient want to go out in the morning after receiving this treatment, his face and feet are washed and water sprinkled over his body first. During the days he is being treated his diet is generally rice with onions, green leaves (*soppu*, "greens"), buttermilk, curd and some salt. Until completely cured he should have no chili.

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LEPROSY (*kusta ro:ga*) 164

6.72. Leprosy is called *doḍḍa no:* ("big disease") as a euphemism for its real name, *kusta ro:ga*, which Badagas would not generally utter. It is thought of as the worst punishment that can come through illness for the heavy sins of one's ancestors. Neither the Badagas nor the Kurumba specialists have a cure for leprosy, although those patients who can afford it take opium continuously to ease the pain. People avoid taking girls in marriage from a leprous family, although leprous men are allowed to mix in public because the disease is not thought to be contagious. Dead lepers are always buried in large quantities of salt, and not cremated.

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Other general illnesses are dealt with elsewhere in this volume, in Chapters 5, 7 and 8.

7 DANGEROUS AND EPIDEMIC DISEASES

"Measles does not harm one; the eye is ungrateful."
(Ironic saying)

164 753 776 7. 1. There are five diseases which the Badagas see as related, and which are called "sister" diseases because they are produced by visitations of the goddess Ma:riamma. These diseases are as follows:

chicken-pox (*cikkamma*, "small Mother")
smallpox (*doḍḍamma*, "great Mother")
measles (*kasare*)
(?) rubella (*taudamma*)
acute conjunctivitis (*Kaṇṇu no:*, cf. 6. 37)

These diseases are distinct from each other because the goddess responsible for all of them is thought to be "playing" in different ways.

164 In all five types it is possible for the therapist to distinguish which disease has occurred by certain of the symptoms. The first four diseases cause itching on various parts of the body; but if there are three spots on the palm of the hand, and/or the centre of the brow, and/or the hollow of the larynx, then the illness is smallpox or chicken-pox. The former is the most feared disease among Badagas, even more so than cholera or plague. It is characterized by the spots (*po:*) itching more and being about 1 cm apart, whereas with chicken-pox they are roughly 1/2 cm apart. In the cases of *kasare* and *taudamma*

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they are further apart yet. These latter two kinds of spots give little trouble, and spread over the body slowly. Once a person has been afflicted by smallpox or chicken-pox he will never get these diseases again; whereas he may suffer repeatedly from the other two.

In all four diseases (i. e., except the eye disease, 6.37) the patient is weak and feverish, and roughly the same rules are followed in treating them; with the important exception that only in the case of smallpox do people vacate their village. However when any of the other three diseases (excluding the eye disease) prevails in a village there is prohibition on anyone having sexual relations. At such times the headman and other elders spread word of the prohibition.

VARICELLA (*Cikkamma*)

7.2. Everyone gets chicken-pox at some time, generally before his tenth year. At first the parents recognize a fever in the child and so give him the regular treatment for that (6. 69). If it does not cure him by the third or the fifth day they know he has a pox. This could be caused either by the goddess "coming into the child," or by his contacting another person with the disease while they are playing, living together, carrying each other, etc. It is very safe to expose a child to chicken-pox in his third or fourth year, after weaning, but the case can become more serious if he does not get it till after the tenth year. Thus parents welcome the disease in children while they are small and not much trouble, and will purposely make a young child eat with another who has the disease; but even such encouragement sometimes fails to work. Very rarely this procedure brings tragic results, as when in one village eleven children died of chicken-pox within 20 days.

If the first signs of fever have not responded to the treatment, on the third or fifth day some spots will be found at one of the three crucial zones mentioned above (7.1). They can only be found in the morning; and until these spots are found the child is not washed. A fever may last for as long as 15 days without any spots appearing (cf. 6.67).

During the early phase of chicken-pox the child

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•164 will neither eat nor sleep as usual. Throughout it he should always be covered with cloths, and these can only be of cotton, never wool. The covering is necessary to prevent wind from blowing on the itches. The pus in the spots would exude, but were it to be blown by wind it would go inside the body instead, causing the patient to feel very sick or even to die. The house must always remain ritually pure while someone has chicken-pox; thus men may not smoke in it, the parents must not have sexual relations, and if the patient is still an unweaned baby its mother must not lie on a bed or on matting, but must sleep on some sacks laid on the floor. During this period nobody throughout the entire hamlet may prepare any foods in oil, and oil may only be used for lamps. When women are cooking in the patient's house, he is taken to another house or at least to the outer room, since the smoke from cooking can make his infection worse. Bands of Kota and Kurumba musicians, both lower status and impure local tribes, are on no account allowed into the hamlet while chicken-pox prevails there, even though they would normally attend at Badaga weddings, funerals and certain festivals. Therefore if a person happens to die while there is chicken-pox in the hamlet the corpse will quickly be buried or cremated; but then later, when there is no longer any chicken-pox, a band of Kota musicians will come and the traditional funeral ceremonies will be observed, using a stick in place of the corpse. Of all the various taboos that come into play during chicken-pox, that against sexual relations is the most crucial, that against cooking with oil the second, and that against Kota or Kurumba music the third most important.

People suffering from this disease are given "cooling" foods to eat, and preferably no "heating" foods at all. If the patient is an unweaned infant his mother has to adopt this food restriction too. Beyond this, there is also a technique for treating chicken-pox. On the third day after some spots

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have been found a therapist takes cold water fresh from the spring, and adds to it three pieces of Bermuda grass and three dead-nettle flowers. This water along with its contents is sprinkled thrice over the child's head and nude body. The procedure is repeated on the fifth, seventh and ninth days after the spots were noticed, but using the same number of pieces of grass and of dead-nettle as there have been days since the apparent onset of the illness. By the ninth day the child usually feels better, but "in one case out of ten" this same procedure has to be followed for the final time on the eleventh day, using 11 flowers and 11 pieces of grass.

After the final treatment the child's body is washed for the first time since the infection was recognized. The bath-water needs to be at body temperature, but if it turns out to be too hot the parent must wait for it to cool and may not on this occasion add cold water to cool it. To this particular bath some turmeric and a nim leaf are added. When the water is ready it is poured over the child's head and body, but the parents do not rub him, wash him with soap, or even touch him. He is not dried with a towel, but made to sit in the house covered with a cloth while incense, turmeric and the dry outer skins of garlic and red onion are burnt together under the cloth. The child sits in this smoke for a minute or two, and only after doing so can he use woollen clothes again.

VARIOLA (*doḍḍamma*)

7.3. Probably no epidemic disease has been commoner or more feared among the Badagas than smallpox (Ouchterlony 1868: 65). In response to it they have developed a method of quarantine that certainly does much to restrict its spread.

The disease is caused by a visitation of the goddess Mariamma. To prevent her coming most Badaga villages celebrate an annual festival in her honour. At one well-known such festival at the temple site of Bokkapu:r chickens, goats and sheep

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a dating which raises the interesting question of whether this worship was intended to soften her anger at the effectiveness of the newly-introduced "European" vaccinations (Stokes 1882: 173).

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It is believed that one infected person can infect many others, and yet Badagas feel that if someone from *beyond* the hamlet has seen an infected person before a neighbour in his *own* hamlet does so, the latter person is that much safer from attack. It is as though some of the danger has been carried off. A person may be infected by smallpox at any age, and he then retires to bed, while the remainder of the population leave the hamlet altogether. Someone of the same sex as the patient, and who has already had the disease, stays to attend him. This person need not be a therapist, but is advised by a therapist. It is believed that anyone who has already had smallpox cannot transmit the disease from an infected person to someone else unless he does it by giving the patient's clothing to somebody. This is quite unlikely to happen since other villagers are not in contact with him at the time. When a patient dies, all the people looking after other smallpox patients in that hamlet help bury the corpse. While it is permissible for other men to dig the graves, they keep well away when infected corpses are brought for burial. It is believed (and perhaps justifiably) that if they were cremated, the smoke could spread the disease.

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Smallpox gives the patient more trouble with itching than do any of the other "sister" diseases, and so he lies on big plantain leaves since these give a cool sensation. He is given a diet of nothing but "cooling" foods, with very little salt. All of the rules and prohibitions adopted during the treatment of chicken-pox also apply to the people caring for patients with smallpox: thus the house must be kept pure, men must not smoke there, sexual relations must not occur, and no oily substances may be used in cooking. Anyone, whether

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758 inside the hamlet or not, if calling to a person still
784 in the hamlet must refrain from shouting to him. If it is essential to talk to someone in the hamlet a man turns his head away so that he cannot see that person. The idea underlying these various restrictions (753) seems to be that fragments of diseased skin could blow into the watery crevices or oily surfaces of the healthy body and thereby spread the disease.

757 At first smallpox is treated as a fever (6. 69), but
758 on the third day after it has been recognized as smallpox the person in attendance, under instruction from a therapist, begins the same water-sprinkling treatment described for the treatment of chicken-pox (7. 2). The water, with dead-nettle flowers and Bermuda grass in it, is sprinkled on the patient on the third, fifth, seventh and ninth days after recognition of the disease, and this continues if necessary on odd-numbered days up to the fifteenth —when 15 flowers and 15 pieces of grass are used. It is believed that no one will be afflicted with smallpox beyond the eighteenth day. As with the treatment of chicken-pox too, the patient is bathed on the last day and then made to sit under a thick cloth where he inhales smoke created by burning incense, turmeric, and the outer skins of red onions and garlic (cf. 7.2).

●164 Once a case of smallpox has been identified as
731 such, all the inhabitants of that hamlet leave and make homes for themselves in makeshift huts in their fields or perhaps some nearby jungle. But before leaving they quickly fence around their houses and workyards with thorn bushes, as a symbol of their hope that the disease might not follow them. Once in their makeshift homes they receive no visitors from elsewhere and visit no other hamlets, until the disease has disappeared entirely. At that time the hamlet's most influential men get together to decide on a day, called *u:r kuḍua jina*, when everyone will assemble and occupy their hamlet again. A

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day or two before the healthy villagers return home all those who have been suffering from smallpox and have stayed in the hamlet leave it early in the morning, and stay in the jungle for a day or two themselves; nowadays they go to a town instead. By leaving early, nobody else runs the risk of setting eyes on them. They must go beyond the hamlet boundary; the intention of this being that if any smallpox remains with them somebody of a different hamlet may catch it. They return home on the evening after the rest of the inhabitants have returned, so that the latter can find a deserted hamlet at the time of their re-entry.

When this day comes the men and boys gather together their cattle and drive them into the hamlet; the implication being that it is no longer a settlement but a grazing ground. The people follow the cattle, shouting "*hau hau*" ("*Hooray!*" a ceremonial cry of jubilation), then gather up the dry thorn bushes on the work-yards and burn them. Along the front of each Badaga house is a line of flat stones set into the work-yard and projecting about a foot from the house wall. These are called *ucce gare* (lit. "urine slab"), since in the old days people could bathe or urinate on them at night without fully leaving the house and so exposing themselves to the witchcraft of Kurumbas. On returning to the hamlet somebody from each household gets a crowbar, raises one of these slabs out of the ground, and then replaces it. This brief act symbolizes building the house anew.

It is only after 19 days have passed since this ceremonial re-entry that a person from a recently evacuated hamlet can either visit another or receive visitors from one: 19 days, because 18 days is said to be the maximum period between a new moon and a full one, or *vice versa*. Followihg the eighteenth day after the hamlet re-entry a communal funeral is held for all the people who have died during the smallpox epidemic. This is done with

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one bed, on which there lies a walking-stick for each dead adult, or a smaller stick for a child. In such a funeral the ritual acts and prayers are performed for each male first, and then for each female, in order of generation seniority and not of absolute age at death. If people of different phratries have died in the same hamlet then a separate bed is used for the sticks representing the members of each. Rituals are done for the superior phratry first, unless the dead members of that phratry were visitors from another hamlet. Finally, if some visitors have died there will be two separate beds for the funerals of agnates and affines within the same phratry.

164 RUBELLA
[165] (*kasare*)

7.4. *Kasare*, probably identifiable with measles, kills scarcely one in a hundred of those who do not follow the restrictions, whereas smallpox kills one in two of those who ignore the treatment procedure. Nonetheless measles should not be taken lightly: as one ironic proverb puts the matter, "Measles does not harm one; the eye is ungrateful [for what it sees]." All the rules for treating smallpox should be followed, except that an infected hamlet is not deserted. The water-sprinkling treatment, begun on the third day after the disease has been recognized by its widely scattered spots, has usually cured it by the seventh day. This is followed by the customary hot bath and inhalation of smoke (7. 2).

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164 PLAGUE
(*ili sattara*)

7.5. Plague was not uncommon early in this century, and was known to be brought by rats (*Rattus rattus*). It is not much of a problem now however, as a medical missionary has observed:

> [Ketti] village has been harbouring the infection of plague for the last 18 months. But although there were as many as 138 rat falls reported in one week, we only know of four humans attacked. This clearly demonstrates the value of prompt preventative measures [by Government health authorities]. Owing to this incidence of plague fewer people have been coming into Ketti from

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the villages around, and this is another reason for the falling off of numbers attending our Dispensary. (Ketti Medical Mission 1938: 4-5)

Elsewhere we learn that, "Plague though not so virulent as it was some years ago, continues to visit certain villages...The infection is invariably traced to importation from Mysore. In 1925 it caused 21 deaths." (Madras 1928: 63)
According to the Nilgiri District gazetteer:

Plague did not reach the district until 1903, in February of which year it was imported from Mysore to Gudalur and caused twenty deaths by the end of March...The disease then spread rapidly among the planters' coolies, estate after estate reporting cases...the outbreak resulted in 191 deaths in all.
In 1904, and again in 1905-1906, the disease reappeared; but the deaths from it numbered only 29 and 49 respectively. The expenditure on preventive measures was heavy, special staffs being engaged and substantial camps being erected, and the threatened attacks at least...awakened interest in sanitary improvement in the towns and larger villages. (Francis 1908: 253-54)

"Rat-falling," as the Badagas call it, is said to be caused by an evil goddess. Plague first attacks rats and then, so Badagas believe, mosquitoes carry it from rats to men. Thus whenever they find a dead rat in the house they clean and vacate that house at once, and nowadays immediately seek injections from public health officials. It is said that people only need to vacate their homes for ten days, but Badagas in fact leave them empty for the entire period between the new moon and the full, or *vice versa*. Before injections were available for plague, Badagas put a paste on the sores it caused, and "one out of ten were cured" by this means; the rest died. The paste was the kind generally put on sores (*ga:le* cf. 6.2).

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164 **CHOLERA** (*ba:ndi be:di*)

7.6. Cholera is primarily an epidemic of the low country and is reportedly introduced to the Nilgiri Hills by inhabitants who visit the plains (Orton 1831: 406; Madras 1928: 63; Ketti Medical Mission 1943: 5). It is said to be caused by an evil god or goddess, and is one of the epidemics loosely labelled *na:du nọ:* ("countrywide illness").

Within two hours of a person's being attacked by cholera he will begin constant vomiting and diarrhoea. There is no accompanying fever; and it is by these two indications that the case is recognized as cholera. The body is now below its normal temperature and so must be given "heating" foods, generally arrack (2.6) and perhaps brandy; the patient is wrapped warmly and heated however possible. Others in the hamlet feel they have no chance to placate the deity who has brought cholera, or to stop her from coming. As soon as it is known that cholera has come everybody leaves the hamlet except for the one or two relatives who tend the patient. These people clean up after him, and are careful to keep their bodies heated along with his. Although people occasionally survive cholera, they most usually die in under two days. As soon as a person dies he is taken from the house and buried, whether it be day or night. No funeral takes place at this time, and no cremation is attempted.

When the villagers know there is no longer any case of cholera in the hamlet they stay away from it for at least a further fifteen days, since they must allow the passage of the full period of fourteen days that separates the new moon from the full, or *vice versa*. Once back home, and unlike their return following a smallpox epidemic, they can immediately receive visitors from elsewhere or go anywhere themselves.

164 753 **MALARIA** (*adurejara*)

7.7 Malaria is considered a kind of fever, and is believed to be caught by drinking the water at places on the lower Nilgiri slopes, below the usual levels of Badaga settlement (Hockings 1974 : 210).

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Their treatment for this type of fever[A] is to grind some shoots of velvety patchouli (called *kodaṇgu*), mix it with water, and make the patient swallow it. This mixture is administered first thing in the morning for three consecutive days, and then the fever will abate. (We should add that in a medical survey 8.4 per cent of a Badaga sample (N=191) were found to have sickle cells; in other words, a high level of genetic resistance to malaria; Gates 1961: 98.)

HEPATITS—JAUNDICE (*manja ka:male*)

7.8 *Ka:male* is a general type of disease which has half-a-dozen varieties. One kind, jaundice, is called *manja ka: male* and is characterized by a yellowness of the body and urine. It attacks fair-complexioned people. It is treated with a juice extracted from ground-up leaves (species unknown), which the patient swallows in the early morning for three days. He is put on a diet of nothing but little millet and buttermilk, and has to avoid salt and chilies. This "cooling" diet is maintained for three days, and on the fourth he resumes his normal food. The patient should lie in a cool place. He can wash his hands, legs and face, but should not bathe during the three days. On each day the yellowness decreases provided he maintains his diet rigidly, and it will disappear by the fourth. On that day the patient takes a hot bath and is then considered cured.

HEPATITIS (*bara ka: male*)

7.9. A related disease is called *bara ka:male* and is marked by the urine turning red. It attacks dark-skinned people. This occurs because "there is too much heat in the body, which is just like baked bread." The body becomes very lean and black in complexion, for "this disease drinks all the blood." It attacks one slowly, and is usually treated by a specialist.

If a local therapist is uncertain whether the patient has *bara ka:male* she can administer a medicine as "first aid" before going to see the specialist. This medicine can be given for 15 to 20 days and is stopped as soon as the disease clears up. But if

A. [i.e., malaria--Analyst]

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no improvement is seen the patient is then taken to the specialist. A dose of this medicine is made from a quarter tumbler of juice ground from the root of Indian pennywort or a related species (*kudure koa:ku*). It is drunk once a day, early in the morning.

A specialist who lives in the village of Kallatti treats this disease differently. He uses a rod, most probably of iron, the end of which is made red hot. In bad cases he burns men with it on both sides of the head, at a point roughly one-third the distance from the eye to the ear. For female patients he burns the body on particular spots, one of four of them at a time. These are on the abdomen, both above and below the navel. But in some cases both men and women may be burnt on the legs or the hands, or at the back of either shoulder, close to the neck. Butter or, less commonly, clarified butter is then applied to these burns and is kept on them for seven to ten days, until they have healed. For the first five to seven days after the burning a leaf of the same *kudure ko:ku* is laid flat over this butter each day and tied into position. Later the butter can be applied without the leaf.

My therapist-informant did not know the cures for all the different types of *ka:male*. One type, called *u:ta kam:ale*, affects vision and causes the entire body to swell up evenly. Other types prevent women from having further pregnancies. In *kattu ka:male* the only symptom is that the eyesight fails. *Hacce ka:male* affects someone suffering from extreme "cold", generally people of light complexion. The specialist at Kallatti treats all type of *ka:male* with basically the same medicine, made from a tree bark, but he gives different instructions for talking it according to the type of disease.

POLIOMYELITIS (*dodda galy*)

7.10 "Big Wind", though not recognized as epidemic, is one of the most feared of all diseases and the most complicated to cure. The Big Wind cannot be distinguished at its onset from Small Wind (6.71): in both the patient has a fever accompanied

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by headache, nausea, reddening of the eyes, and perhaps some part of the body not functioning normally. The first phase moves into a severer second phase after the eighth day, so that the therapist has to watch closely for symptoms that differentiate it from Small Wind. In the latter illness the fever is "all over the body," whereas in Big Wind it is everywhere except "where the Big Wind struck." If a large area has been "struck," an entire limb may be paralyzed, the other feverish parts of the body are hot and sweaty while the "struck" part is cold.

No one has died of the disease, but if a cure is not effected the patient may be partially paralyzed for the rest of his life. Fortunately it is a very rare disease: my elderly informant, Sithamma, could only remember a single instance of it in her village during the entire century. The patient was a small boy. She brought a male therapist to him from another village; for while a lady therapist could mix the medicine it it usual for a male to rub the medicine all over a male patient and for a female to treat another woman.

Very few know the cure. Of the three men I heard about, one practised over half the Nilgiri Plateau, a second was too old to practise, and a third was not successful with the treatment because of his impure life. From all but the very poor the one still practising therapist accepts presents of any kind, but does not make a formal charge for his services. The patients do also have to give him 1/4 rupee as a "tree-present" and 1 1/4 rupees as "lamp-present" (see below).

The illness is caused by a passing god (*de:va:digo*), the corner of whose cloth has touched a person. The Big Wind starts at the point where the cloth hits him, and then spreads through the body. If the point which was struck is bigger than a rupee coin, it means that the god was angry with the patient, and in that case he cannot be cured although he will still live. According to one therapist the

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763 Although the Badagas do not write wills, a dying man may make
428 a benefactory statement, each wish in it being called a *sa:la*
("debt"). It is believed that if these wishes are not followed the
775 spirit of the dead man will trouble some of his relatives. It does not possess the wrongdoer as a ghost but puts a curse on him. Since Badagas do not believe in a further reincarnation the spirit of the dead man will be able to go to heaven if he has done enough good deeds in this life. If his dying wishes are not followed, however, he will have to remain in limbo (*eḍe lo:ka*, "the middle place"). This dismal prospect should weigh heavily on his relatives.

763 In Badaga belief a person does not die when he gives out his last
764 breath, but rather when he takes in his last breath. This breath is believed to remain in his body for the next ten days, and enables the corpse to hear and be aware of everything that is going on around it, even though the dead person cannot open the eyes, speak, or move. Thus people commonly speak to a corpse during
764 the funeral. For most Badaga phratries this ceremony involves cre-
[615] mation one or two days later, on ground several hundred meters outside the hamlet. Lingayats and children are instead buried at that place, and nowadays poor widows of various phratries may have to be buried because cremation has become quite costly (Noble and Noble 1965).

762 9.6. Suicide is by no means uncommon among the Badagas, particularly among young married women, and it is most usually accomplished by swallowing opium. Failing that, the juice from oleander

[TEXT CONTINUED ON PAGE 178]

Table 4. Death per thousand of the entire Rural Population of the Nilgiri Plateau, 1921-1930

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	Cholera	Small-pox	Plague	Fever	Dysentery/ Diarhoea	Other Causes	Total 1,000 People
Rural Coonoor taluk (1921-25)	0.20	0.30	0.10	10.20	6.10	9.40	26.40
Ditto (1926-30)	0.01	0.08	0.05	11.47	5.81	10.90	28.32
Rural Ootacamund taluk (1921-25)	0.80	0.50	0.30	21.90	4.60	10.90	38.30
Ditto (1926-30)	0.03	0.14	0.24	16.30	4.96	11.30	33.17

Table 5. Average number of deaths per month from various causes, in the entire Nilgiri District population, 1951-1960

CAUSE	January	February	March	April	May	June	July	August	September	October	November	December	Total Deaths, (1951-1960)
Cholera	—	—	—	—	0.7	—	—	1.0	0.4	—	0.3	0.4	28
Smallpox	0.6	1.6	2.6	1.8	1.9	2.6	2.1	2.3	1.4	1.0	1.1	0.9	199
Plague	—	—	—	—	—	—	--	—	—	—	—	—	0
Fevers	48.2	55.2	62.3	61.5	77.5	78.9	78.9	64.5	52.0	55.1	55.3	53.2	7,426
Malaria	2.2	1.7	2.0	3.1	4.5	3.8	3.8	2.7	2.2	1.2	1.4	2.0	306
Dysentery/ Diarrhoea	18.7	18.1	23.8	34.5	43.5	40.3	30.3	21.1	20.9	20.5	24.9	17.1	3,137
Respirathry	57.4	48.9	58.8	56.9	65.4	60.9	64.8	59.5	56.6	58.3	62.5	60.2	7,102
Childbirth*	1.5	2.5	2.5	5.0	2.5	4.0	3.5	4.0	1.0	1.0	1.5	3.0	3200*
Total per month	128.6	128.0	152.0	162.8	196.0	190.5	183.4	155.1	134.5	137.1	147.0	136.8	18,518

*These figures are rough estimates, based on the statistics available for 1959-1960 only.

(SOURCE : Nambiar 1965: 382-85)

4: Hockings E-5 (1962-1977) 1980
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roots or nuts is quite effective. The common South Indian technique of jumping down a well is not possible in a terrain which has virtually no wells (Basel Mission 1853: 42; Rivers 1906: 635). In early times Badagas who wanted to take their lives swallowed the poisonous sap of the giant lobelia. Anyone whose life is ebbing and is thought to have taken poison is occasionally saved by being forced to swallow soapy water: this causes him to vomit. We have already described some other techniques to bring on vomiting in 6.54.

The Causes of Death

9.7. While the commonest causes of death among the Badagas are well known to public health officials, the number of deaths attributable to each is not apparent from recent statements. There are somewhat reliable figures available on causes of death for the entire rural population in Coonoor and Ootacamund *Taluks* during 1921-1930, and as these are the two sectors of the Nilgiri District where Badagas preponderate rurally the statistics can be viewed as largely referring to this community (see Table 4, based on Madras 1928: 9 and Madras 1933: 8). These statistics express average number of deaths per thousand of the rural population annually.

We can also cite figures of questionable reliability for the period 1951-1960, but again these figures (Table 5) cover the entire population of the Nilgiri District, not merely the Badagas. One Nilgiri disease pattern is very clear from Table 5, namely thet the dry hot month of May and the windy monsoon months of June and July have by far the highest death rate, particularly with cases diagnosed as fevers, dysentery, and respiratory ailments. Malaria, although of little concern today, also peaks in those months. The high rate of deaths in childbirth in April, however—if these figures may by trusted—is not indicative of a high birth rate in April, and thus of a high rate of conception during the monsoon month of July, it is instead an accidental feature that characterized 1959 alone (Nambiar 1965: 381). Badagas recognize the nesting season, from the start of Tai (around October-November) till when the fledglings leave the nests (around January) as the main season of human and cattle sicknesses.

The reliability of these figures in Tables 4 and 5 is in question because we do not know to what extent deaths occurred in the more remote Nilgiri villages that went unreported or with their

41 Hockings E-5 (1962-1977) 1980
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causes not ascertained. We must also bear in mind that the Badagas made up only 21 per cent of the Nilgiri population in 1961; and they were probably somewhat healthier and better adapted to the montane climatic conditions that most lowland immigrants who have come to the plateau in recent decades as underpaid and undernourished day labourers, and whose deaths are also reflected in these statistics.

9.8. For one area of the Nilgiri District it is possible to be more specific about the causes of death among Badagas. I have located the register of deaths (among Christian Badagas) for the Parish of Ketti during the years 1892-1921. Although health conditions have improved somewhat since that period in the several dozen villages it covers, it is unique as a near-random sample (N=240) of the larger population, and its 33-year span is an important factor. A very few of the Christians listed in this register were non-Badagas or children of only one Badaga parent, but as they also lived and worked in one of the various Badaga villages which contained Christians their fate is nonetheless a good indicator of local health conditions. They have therefore been included in Table 6, (whereas five cases have been excluded because cause of death and age were omitted from those entries).

Because the register is very precise about age at the time of death, as well as stating the apparent causes of death, it should be possible to throw light on the factors responsible for the high rate of infant mortality among Badagas of that period. A cautionary note, however, is that no case histories are available, and in such situations "credit is often given to some respiratory or gastroenteric disease that may in fact have only administered the coup de grâce" (Newman 1962: 23). In particular, we may suspect that nutritional deficiencies often led to a constitutional weakness in Badaga infants which made it easy for one of the recorded maladies to take its toll.

The commonest factors in the deaths of children under one year were fever (4 boys, 9 girls), influenza (1 boy, 5 girls), whooping cough (5 boys), convulsions—usually a result of brain injury caused during the actual birth (9 boys, 7 girls), pneumonia (7 boys, 3 girls) and bronchitis (1 boy, 5 girls). The fact is that during the entire period 1892-1921, half of a total of 114 male and 126 female Christians who died—i.e., 65 boys and 62 girls—died in the first 12 months of life. In contrast, the stated number of mothers who died as a result of childbirth over this period is remarkably low (3).

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Table 6. Causes of Death Among 240 Badagas, 1892-1921

AGE-GROUP	FEVER	DYSENTERY	TUBERCULOSIS	CONVULSIONS	WEAKNESS or OLD AGE	PNEUMONIA	LIVER or KIDNEY	BRONCHITIS	INFLUENZA	WHOOPING-COUGH	TYPHOID	MEASLES	STROKE	MISCARRIAGE PREMATURE	PUERPERAL FEVER	BUBBS	CHICKEN-POX	SMALLPOX	MALARIA	JAUNDICE	LEPROSY	PARALYSIS	CARBUNCLE	STARVATION	OPIUM SUICIDE	total by age
0-5 years																										65/62
6-15 "																										14/10
16-25 "																										7/17
26-35 "																										7/10
36-45 "																										5/5
46-55 "																										1/5
56-65 "																										7/5
66-75 "																										3/7
76-85 "																										3/4
86-95 "																										2/1
totals:	19/27	18/15	9/18	10/9	14/10	10/7	7/7	4/9	2/9	6/1	3/2	4/1	3/	1/2	-/2	1/1	1/	/1	/1	1/	/1	/1	/1	1/	/1	14/

Note : Underlined numerals represent females; *N-126*)

4: Hockings E-5 (1962-1977) 1980
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that the mission hospital was of considerable value, particularly during the War years, except as a place for childbirth. Badagas and others came from villages as far as twenty miles away to seek treatment, and a number of doctor's visits were made to patients in their homes as well. "When our work was first started we were confronted by opposition in some of the villages. Now opposition has disappeared and wherever we go we are welcomed. Moreover, when a patient is very ill we are often requested by Hindu Badagas to hold the patient's hand and pray to God for his or her recovery." (Ketti Medical Mission 1940: 3). From the village where K. Sithamma was born "has come the request to open a small dispensary, the villagers offering to bear part of the cost. If the way opens we shall be glad to help...." (Ketti Medical Mission 1941: 6)

Dr Simon found that the common Badaga diseases were "pneumonia, typhoid, dysentery, hill diarrhoea, malaria, rickets, intestinal parasites, tuberculosis, anaemea, food deficiency diseases, skin diseases such as scabies, ring worm etc." (Ketti Medical Mission 1951 : 3). He also recorded a few deaths among patients due to pneumonia, diphtheria, cerebral hemorrhage, and damage during birth (Ketti Medical Mission 1934: 10; 1938: 3-4; 1951: 3). This is in contrast with the situation reported a century earlier, when the most prevalent diseases were said to be "small pox, occasionally fever, and an affection of the eyes resembling ophthalmia" (Ouchterlony 1848: 65).

The inroads of scientific medicine have been such that in 1972 the informant Sithamma told me that although she used to recommend Badaga therapy as the best, she was now recommending Western medicine and hospitals to people. In her well-informed view therapists giving traditional treatment no longer know it properly: the good therapists are dying out, while younger women are not seriously interested in studying the subject. An old therapist should not teach, but simply be observed by students, and today the young are not motivated to learn in this way. The few girls she had trained in midwifery were still calling for her help whenever they had to attend a delivery.

Knowledge of Physiology

10.12. If we are to gain some further insight into Badaga conceptions of health and medicine, we need to discover their indigenous

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illness. Sexual over-exertion can similarly make a young man incapacitated (cf. 3.10).

(*h*) The odour that follows on an act of coitus, or the "bad wind" that emanates from a corpse, or from a childbirth, are widely held to be responsible for illness and even death in unweaned infants.

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(*i*) Some misfortunes, like bites, stings and burns, are caused by quite obvious external agents. What we would consider equally obvious cases of infection, however, may be considered by Badagas to have a more complicated causation ; as in the reported case of a woman with

753 164 797

> an extensive ulceration from the right arm pit to the right shoulder and to the right breast. It was full of black-headed maggots .... It seems she had been in this state for one and a half months in the village ... The rest of the crowd made most unkind remarks at her expense. Some said that it was on account of her bad life in a previous birth that she had to suffer thus. Her husband's brother said that I must either cure her soon or put her to a painless end .... I sprinkled into the deep ulcerated tissue a small quantity of chloro form, and the maggots fell dead in hundreds .... There followed an uneventful recovery ... (Ketti Medical Mission 1949: 4-5)

(The writer was of course an Indian doctor trained in scientific medicine.)

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(*j*) Depigmentation of the skin is caused by the supposed "bite of a blindworm."

[777]

(*k*) Nowadays a "germ theory" is not unknown, as for example in the explanation offered me for why teeth rot. Cleanliness of body is strongly approved of today.

[777]

(*l*) In the case of plague it is thought that mosquitoes carry the disease from rats to men. This modern-sounding but inaccurate theory probably arose from the publicity that surrounded the mosquito eradication programme on the lower slopes some year ago.

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(*m*) And finally there is a belief that bad luck and illness tend to repeat themselves for an individual: as a proverb puts it, "The very foot which is scarred will be hurt again."

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(Note: All identifications of illnesses in scientific terms should be regarded as somewhat tentative. Numbers refer to chapter and section.)

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614 generations, although the Toreyas themselves are hazy about its causes. Provided
615 the two sibs really are exogamous and each only marries with the other, their num-
•(169) bers should become roughly equal by the end of this century. Apparently one of the frequent epidemics which plague this area ravaged one of the sibs early in the present century while leaving the hamlets of the other relatively unscathed. The latter sib now includes large numbers of unmarried men and women.

How are the Toreyas handling this challenge? Strangely enough, in view of
615 the well-known precedents set them by other Badaga phratries, the Toreyas have not resorted to the expedient of marrying outside their phratry, either to other Badagas or to Kanarese peasants. The only explanation for this behavior seems to be that they are poorer and less well educated than any other Badaga phratry, and they feel that marriage beyond the bounds of their own phratry would -- far from relieving their tensions -- threaten their very identity as a group.

The main solution they have attempted, and with considerable success,
595 615 is polygyny. This is a permissible form of marriage among all Badagas, although it is rarely practiced today. Those Toreya men of the smaller sib who can afford it nevertheless quite often take a second wife. Polyandry, on the other hand, is no longer a permissible form of Badaga marriage; although it was apparently common
595 until the end of the last century (Natesa Sastri 1892: 754). Even so, I believe that
614 cases of <u>de facto</u> fraternal polyandry occur among men of the larger Toreya sib
615 and contribute to a solution of the present problem. It can also be assumed that many of the unmarried women of the larger sib still succeed in becoming mothers. A Toreya girl is quite commonly the object of a Gauda boy's attentions; but although children may result from such a casual union, marriage never does.

574 615 Toreyas can be offered vegetarian food in the houses of all other phratries

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basket makers, blacksmiths, carpenters, hide curers, potters, and musicians. Badagas worked as laborers when Englishmen started living on the Nilgiris, but have increasingly obtained clerical and professional employment. Badagas and Kotas use seasonal livestock centers to graze herds of buffaloes and cattle on the temperate grasslands. The Badagas have established a sacred buffalo herd and dairy-temple at Bargani (Figure 1). Through the cooperation of employed Kasuvas, they also manage to keep buffaloes and cattle in the Mysore Ditch (Figure 2).

Excluding some Badagas dwelling in dispersed houses, Badagas and Kotas in the Nilgiri Wynaad occupy hamlets. Both depend upon rice grown in wet fields. There are assorted gardens near their houses, and the Badagas grow millets on upland dry fields. As on the upper Nilgiris, Kotas are differentiated from the Badagas by their trades. Some Badagas labor on nearby plantations.

2. The Philosophic Base

The premise. The interpretive approach employed in following chapters is based on the premise that members of a small culture who occupy a similar environment will repeatedly adjust and utilize the landscape in a set pattern, or in set patterns, conforming to their needs and technological capacities. Because the members are conformists, they build similar occupance forms, arrange the forms in the same fashion, and use the landscape about their dwellings according to the economy related to their culture. Adjustments to environments by members of many small cultures, therefore, result in typically